CLAIMS:

1. A method to detect a picture repetition mode of film material comprising a series of consecutive fields, the method comprising the following steps:

- Establishing a motion parameter pattern for said film material;
- Comparing said pattern with a number of predetermined motion parameter patterns;
- Determining said picture repetition mode using the result of the preceding step;

characterized in that, said method includes the following steps:

- Identifying a plurality of different objects within said consecutive fields, an object being defined as an image portion of said consecutive fields that can be described with a single motion model;
- Carrying out the following steps:
  - Establishing a motion parameter pattern for each one of said objects within said consecutive fields;
  - Comparing said motion parameter pattern with a number of predetermined motion parameter patterns;
  - Determining said picture repetition mode for each one of said objects using the result of the preceding step.

2. Arrangement to detect a picture repetition mode of film material comprising a series of consecutive fields, the arrangement comprising processing means and a memory (M), the processing means being arranged to carry out the following steps:

- Establishing a motion parameter pattern for said film material;
- Comparing said pattern with a number of predetermined motion parameter patterns stored in said memory (M);
- Determining said picture repetition mode using the result of the preceding step;

characterized in that, said processing means are arranged to carry out the following steps:

- Identifying a plurality of different objects within said consecutive fields, an object being defined as an image portion of said consecutive fields that can be described with a single motion model;
- Carrying out the following steps:

- Establishing a motion parameter pattern for each one of said objects within said consecutive fields;
- Comparing said motion parameter pattern with a number of predetermined motion parameter patterns stored in said memory;
- Determining said picture repetition mode for each one of said objects using the result of the preceding step.

3. Arrangement according to claim 2, wherein said processing means are arranged to identify said plurality of different objects by also using a motion estimation technique.

4. Arrangement according to claim 3, comprising a plurality of motion model parameter estimators ($PE_m(n)$) operating in parallel to carry out said motion estimation technique.

5. Arrangement according to claim 2, comprising a segmentation unit (SU) for performing a recursive segmentation method to identify said plurality of objects.

6. Arrangement according to claim 2, comprising a data reduction unit (DRU).

7. Arrangement according to claim 2, wherein said predetermined motion parameter patterns relate to at least one of the following set of film modes: a 2-2 pull-down mode, a 3-2 pull-down mode, and video mode.

8. Arrangement according to claim 2, comprising a film processing unit carrying out a film material processing step.

9. Arrangement according to claim 8 wherein said film processing unit is arranged to carry out at least one of the following steps: picture rate conversion, de-interlacing, and film judder removal.

10. Chip provided with an arrangement according to any of the claims 2 through 9.

11. Television apparatus provided with a chip according to claim 10.

12. Computer program product to be loaded by a computer arrangement, comprising instructions to detect a picture repetition mode of film material comprising a series of consecutive fields, the arrangement comprising processing means and a memory (M), the computer program product, after being loaded, providing said processing means with the capability to carry out the following steps:

- Establishing a motion parameter pattern for said film material;
- Comparing said pattern with a number of predetermined motion parameter patterns stored in said memory (M);
- Determining said picture repetition mode using the result of the preceding step;

characterized in that, said processing means are arranged to carry out the following steps:

- Identifying a plurality of different objects within said consecutive fields using a motion estimation, an object being defined as an image portion of said consecutive fields that can be described with a single motion model;
- Carrying out the following steps:
  - Establishing a motion parameter pattern for each one of said objects within said consecutive fields;
  - Comparing said motion parameter pattern with a number of predetermined motion parameter patterns stored in said memory (M);
  - Determining said picture repetition mode for each one of said objects using the result of the preceding step.

13. A data carrier provided with a computer program product according to claim 12.